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FAX FILING IN U.S. PATENT & TRADEMARK OFFICE

DATE: April 26, 2006 *TIME:*

TO: Examiner Deandra M. Hughes	FAX NO.: 571-273-6982
FROM: Lowell L. Carson, Reg. No. 48,548	ADMIN. ASST.: Kathleen Spina
APPLN. NO.: 10/644,570	ATTY. DOCKET NO.: TNT-114US
TITLE OF APPLN.: PLACING A SEMICONDUCTOR LASER ELECTRICALLY IN SERIES WITH A SEMICONDUCTOR OPTICAL AMPLIFIER	
FILING DATE: August 20, 2003	ART UNIT: 3663
FIRST INVENTOR: Aaron Fisher	CONF. NO.: 6637
TITLE OF DOCUMENT (and List of Attachments): Claim set.	

Total Number of Pages: 5 *(including this form)*

COMMENTS

Examiner Hughes please find the claim set we discussed enclosed.

Thanks, Le

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) An amplified laser comprising:

a substrate,

a semiconductor optical amplifier (SOA), coupled to the substrate and including an amplifier anode electrode and an amplifier cathode electrode, ~~and~~

a semiconductor laser, coupled to the substrate and including a semiconductor laser anode electrode and a semiconductor laser cathode electrode, and

an electro-absorption modulated laser (EML) package that encloses the semiconductor laser and the SOA, the EML package including:

a first electrical contact electrically coupled to at least one of the anode electrode of the SOA or the anode electrode of the semiconductor laser;

a second electrical contact electrically coupled to at least one of the cathode electrode of the SOA or the cathode electrode of the semiconductor laser; and

an optical output port configured to provide an output amplified optical signal;

wherein;

the semiconductor laser and the SOA are configured on the substrate so that the laser is optically coupled to the SOA; and

at least one of the semiconductor laser anode electrode or semiconductor laser cathode electrode is electrically coupled to at least one of the amplifier anode

electrode or amplifier cathode electrode such that the semiconductor laser and the SOA are electrically connected in series.

2. (Canceled)

3. (Previously Amended) An amplified laser comprising:

a substrate;

a semiconductor optical amplifier (SOA), coupled to the substrate and including an amplifier anode electrode and an amplifier cathode electrode;

a semiconductor laser, coupled to the substrate and including a semiconductor laser anode electrode and a semiconductor laser cathode electrode;

an electro-absorption modulated laser (EML) package that encloses the semiconductor laser and the SOA, the EML package including:

a first electrical contact electrically coupled to at least one of the anode electrode of the SOA or the anode electrode of the semiconductor laser;

a second electrical contact electrically coupled to at least one of the cathode electrode of the SOA or the cathode electrode of the semiconductor laser; and

an optical output port configured to provide an output amplified optical signal; and

at least one of:

a thermo-electric cooler (TEC) thermally coupled to the substrate, the TEC electrically coupled to a third electrical contact and a fourth electrical contact of the EML package;

a feedback monitor optically coupled to the semiconductor laser, the feedback monitor being electrically coupled to a fifth electrical contact and a sixth electrical contact of the EML package; or

an optical modulator optically coupled to the SOA, the optical modulator being electrically coupled to a seventh electrical contact of the EML package;

wherein;

the semiconductor laser and the SOA are configured on the substrate so that the laser is optically coupled to the SOA; and

at least one of the semiconductor laser anode electrode or semiconductor laser cathode electrode is electrically coupled to at least one of the amplifier anode electrode or amplifier cathode electrode such that the semiconductor laser and the SOA are electrically connected in series or in parallel.

4. (Original) The amplified laser of claim 1, wherein the cathode electrode of the semiconductor laser is electrically coupled to the anode electrode of the SOA whereby the semiconductor laser and SOA are connected in series.

5. (Previously Amended) The amplified laser of claim 4, further comprising an electronic component electrically coupled in parallel to at least one of the semiconductor laser or the SOA.

6. (Previously Amended) The amplified laser of claim 5, wherein the electronic component includes at least one of a resistor, a capacitor, an inductor, or an integrated circuit.

7. (Original) The amplified laser of claim 1, wherein the anode electrode of the semiconductor laser is electrically coupled to the cathode electrode of the SOA whereby the semiconductor laser and the SOA are connected in series.

8. (Previously Amended) The amplified laser of claim 7, further comprising an electronic component electrically coupled in parallel to one of the semiconductor laser or the SOA.

9. (Previously Amended) The amplified laser of claim 8, wherein the electronic component includes at least one of a resistor, a capacitor, an inductor, or an integrated circuit.

10-22 (Canceled)